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The Importance of Education and Follow Up of Patients Under Direct Oral Anticoagulants. The Role of Anticoagulation Clinics

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Abstract

Since the emergence of Direct oral anticoagulants (DOACs), also known as Non vitamin K antagonists (NOACs), the management of these types of therapies has been expanded from anticoagulation clinics to other specialists and general practitioners, sometimes without experience in this field. It is true that these drugs don't need routine monitoring, but a close clinical vigilance is recommended, particularly as the target patient population tends to be elderly and frail. Important issues about DOACs management are

a) Changes in dosification depending on renal function, age, weight or potential interactions

b) education to patients and healthcare professionals

c) patient's adherence to treatment and satisfaction

In our opinion Anticoagulation Clinics should be reference centers for better care and management of anti coagulated patients with VKA and DOACs and also places where unify clinical practices based in scientific evidence and current guidelines. Moreover, from a social point of view, these units can provide structured education to patients to improve treatment adherence and reduce complications.

Keywords: DOACs; NOACs; Anticoagulation Clinics; Education; Management; VKA; Adherence

Abbreviations: DOACs: Direct oral anticoagulants; NOACs: Non vitamin K antagonists; VKA: vitamin k antagonists

Introduction

Atrial fibrillation is the most common sustained arrhythmia in the general population and is associated with an increased risk of stroke [1-3]. For this reason, most of these patients will be treated with anticoagulant drugs for primary or secondary prophylaxis. Until the past decade the mainstay of this treatment was the vitamin k antagonists (VKA) or coumarins. Individual variability around VKA metabolism requires careful dose titration and patient education about drug–drug interactions and life style to minimize complications. To address these challenges, anticoagulation clinics were developed as multidisciplinary units to mitigate the risk of bleeding while ensuring safe and effective care for patients taking coumarins [4]. Since the emergence of Direct oral anticoagulants (DOACs), also known as Non vitamin K antagonists (NOACs), the management of these types of therapies has been expanded from anticoagulation clinics to other specialists and general practitioners [5], sometimes without experience in this field.

In contrast to VKA, DOACs offer "rapid, predictable and stable anticoagulation intensity" [6]. Four DOACs have been approved to be used in Europe:

a) Apixaban,

b) Rivaroxaban,

c) Edoxaban (direct factor Xa inhibitors) and

d) Dabigatran (a direct thrombin inhibitor)

As they are not inferior to VKAs in efficacy and have a better security profile and easier management, some international guidelines have suggested to initiate anticoagulation therapy for AF or VTE with DOACs as the first option [7,8]. It is true that

these drugs don't need routine monitoring, but a close clinical vigilance is recommended, particularly as the target patient population tends to be elderly and frail [9,10]. Patient follow-up may be undertaken by professionals with experience. Growing evidence shows that nurse-coordinated AF clinics may be very helpful in this regard [11,12].

Important issues about DOACs management are:

a. Changes in dosification depending on renal function, age, weight or potential interactions

b. Education to patients and healthcare professionals, and 3. patient's adherence to treatment and satisfaction.

Some registries have shown that DOACs dosification in real life is not always correct [13]. Off-label doses of DOACs, especially under dosing, occur in more than 12% of patients. Patients with impaired renal function with a need of dose reduction that maintain the higher dose have more bleeding risk than those who are taking an adequate dose according to their creatinine clearance [14]. In the same way, those patients under dosed have higher stroke rates and need of hospitalization than those who are receiving a correct dose [15]. As renal function, weight or concomitant drugs may be variable, guidelines recommend to follow up these patients at least once or twice a year [9]. Continuous education to patients by a well trained team formed by nurses and physicians is a key issue. Multifaceted and customized educational intervention (including patients, caregivers and health providers) can improve the good use of oral anticoagulation in patients with atrial fibrillation and reduce the occurrence of stroke [16].

Expert anti coagulated patients showed higher rates of adherence and persistence with DOACs over naïve anti coagulated patients [17]. Some studies showed that DOACs' non-adherence reached 50% if no special measures are being taken [18]. Therefore, patient education may be essential to achieve a higher rate of adherence. Another important point is patients' preference. Expert anti coagulated patients had related in qualitative studies that prefer clinical monitorization of DOACs in Anticoagulation Clinics because they value specific experience and knowledge of physicians and nurses, assistance time and telephone support in questions about DOACs [19]. Studies about quality of life in anti coagulated patients show higher rates of satisfaction with specialist clinical management in anticoagulation compared with general primary attention [20].

Conclusion

In our opinion Anticoagulation Clinics should be reference centers for better care and management of anti coagulated patients with VKA and DOACs and also places where unify clinical practices based in scientific evidence and current guidelines. Moreover, from a social point of view, these units can provide structured education to patients to improve treatment adherence and reduce complications.

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